



Claims:

1. A winder including:

an extra section;

said extra section including:

a gripper; and

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a brake;

said extra section for controlling a wire force without having to change a pitch diameter of the gripper or a sprocket.

2. A winder according to claim 1 in which the brake is a stationary brake

3. A winder according to claim 2 in which the brake is liquid cooled.



4. A winder according to claim 3 in which the torque transmitted to the frictional element is reduced without gearboxes or chains.

5. A method of controlling a wire winder, said method including:

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as a tower travels around a tank, generating a square wave from the wheel drive;

feeding said square wave to a counter and counting a number of said square waves;

comparing the number of counts with a number selected by an operator for a spacing location;

powering a proportional hydraulic valve, and thereby pressurizing fluid into an elevator hydraulic motor;

thereby rotating the motor until the spacing counter has counted the pre-selected number; and

shutting the hydraulic flow.

6. A method according to claim 5 in which the square waves generated from the wheels and elevator motor are from optical encoders and fed to a counter.

7. A method according to claim 5 in which the square waves generated from the wheels and elevator motor are from segmental commutator rings and fed to a counter.

8. A method according to claim 5 in which a strip chart recorder records information from various transducers as the tower travels.

9. A method according to claim 8 in which the paper is fed in direct relation to the movement of the tower so that the location of events can be related to the events.

10. A method according to claim 8 in which the controller automatically turns on the recorder on and selects an appropriate paper speed.

11. . A method according to claim 5 in which the square wave provides feedback for low cost proportional valves.

12 A method of placing seismic cables, in which epoxy is used to protect the seismic cables from liquids.

13. A method of using seismic cables according to claim 12 in which end caps are used to prevent liquid from entering ends of a cable and traveling through the cable.

14. A method of using seismic cables according to claim 12 in which the cable is filled along its length with epoxy.

15. A method of using seismic cables according to claim 14 in which the cable is filled using an autoclave.

16. A method of using seismic cables according to claim 14 in which the cable is filled by pumping epoxy through the core.

17. A method of using seismic cables according to claim 14 in which the cable is filled by pulling epoxy through the core.

18. A method of using seismic cables according to claim 14 in which the cable is also protected by a sacrificially coating said cables.

19. A method of using seismic cables according to claim 14 in which the cable is also protected by a sacrificially coating said cables with zinc before applying epoxy filling

20. A method of using seismic cables according to claim 14 including applying abrasive material on the outside of the epoxy covering.

21. A wire winder system, including:

a tower for traveling around a tank,

a square wave generator for generation square waves as a function of motion of a wheel drive;

a counter for counting a number of said square waves;

means for comparing the number of counts with a number selected by an operator for a spacing location;

a proportional hydraulic valve, actuated in response to said comparing means,

an elevator hydraulic motor; actuated by pressurized fluid from said proportional valve to thereby rotate the motor until the spacing counter has counted the pre-selected number and shut the hydraulic flow.

motor are from segmental commutator rings and fed to a counter.

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